Date:

Tuesday, 13/05/2008 9:28:16 AM

Julie Lecocq User:

Customer

: CU-DAR001 Dart Helicopters Services

Type

Job Number **Estimate Number** 

: 39226 : 10716

P.O. Number

This Issue

: 13/05/2008

: NC

Prsht Rev.

: // First Issue : 39099

Written By

**Previous Run** 

Checked & Approved By

Comment

: Est Rev:A 04.02.18

Est Rev:B ECN 1060

S.O. No. :

New issue KJ/DS 07-11-12

: MACHINED PARTS

DD verified by:EC

**Process Sheet** 

**Drawing Name** 

: BEARING ASSEMBLY

Part Number

Due Date

**Drawing Number** 

: D3121241 . D3121 REV E

: N/A

**Project Number** 

: E **Drawing Revision** 

Material

: 26/05/2008

Qty:

40 Um:

Each

**Additional Product** 

Job Number:

Seq. #:

Machine Or Operation:

Description:

1.0

MDELRINR12500

Total: 2.1840 f(s) 0.0546 f(s)/Unit

Material: Ø1.25 Delrin Rod

(M-DELRIN-R1.2500)Identify as D3121-25

Comment: Qty :

2.0

HARDINGE

HARDINGE CNC LATHE SMALL

**DELRIN ROUND BAR 1.25"** 



Comment: HARDINGE CNC LATHE SMALL

1-Turn D3121-25 Cap as per Folio FA387

2-Deburr

INSPECT PARTS AS THEY COME OFF MACHINE



3.0

QC2



Comment: INSPEC

QC8

SECOND CHECK



4.0



Comment: SECOND CHECK

5:0

D312123

Pick:

Bearing





Comment: Qty.:

1.0000 Each(s)/Unit Total:

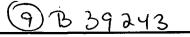
PARTS AS THEY COME OFF MACHINE

40.0000 Each(s)

FF 08-05.29

**Qty Part Number** 1 D3121-23

Description Batch Bearing 12



Dart Ae	rospace	Ltd							
W/O:			WC	RK ORDER CHANG	ES				
DATE	STEP	PRO	OCEDURE CHAI	NGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
		•						·	
Part No	:	PAR #:	Fault Cate	Jory:	_ NCR: Yes	No <b>DQ</b>	A:	Date: _	
					QA:	N/C Close	ed:	Date: _	
NCR:		\	WORK ORDE	ER NON-CONFORMA	NCE (NC	R)			
D. 4 T. F	0750	Description of NC		Corrective Action Section		Verifi	cation	Approval	Approval
DATE	STEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign Date	& Sect	tion C	Chief Eng	QC Inspector
·									

NCR:		WORK ORDER NON-CONFORMANCE (NCK)								
	STEP Description of NC Section A			Corrective Action Section B			Ammental	A		
DATE			Initial Chief Eng	Action Description Chief Eng	Sign & Date	Verification Section C	Approval Chief Eng	Approval QC Inspector		

NOTE: Date & initial all entries

Tuesday, 13/05/2008 9:28:16 AM Date: User: Julie Lecocq **Process Sheet Drawing Name: BEARING ASSEMBLY** Customer: CU-DAR001 Dart Helicopters Services Part Number: D3121241 Job Number: 39226 Job Number: Description: Seq. #: **Machine Or Operation:** SMALL & MEDIUM FAB RESOURCE 1 SMALL FAB 1 6.0 Comment: SMALL & MEDIUM FAB RESOURCE 1 1-Press D3121-23 Bearing into D3121-25 Cap as per Dwg D3121 INSPECT WORK TO CURRENT STEP 7.0 QC5 Comment: INSPECT WORK TO CURRENT STEP PACKAGING RESOURCE #1 PACKAGING 1 8.0 Comment: PACKAGING RESOURCE #1 Identify and Stock Location:\_ FINAL INSPECTION/W/O RELEASE 9.0 QC21 U 8.6.02 Comment: FINAL INSPECTION/W/O RELEASE Job Completion

### **Dart Aerospace Ltd**

<b>W</b> /O:			WC	ORK ORDER CHANGES	3		·		
DATE	STEP	PROCEDURE CHANGE			Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	gory:	NCR: Yes	No DQ	A:	Date:	
					QA:	N/C Close	d:	Date: _	
NCR:			WORK ORD	ER NON-CONFORMAN	CE (NC	R)			
DATE	STEP	Description of NC	Initial	Corrective Action Section E Action Description	3 Sign		cation	Approval	Approval
		Section A	Chief Eng	Chief Eng	Date	e Sect	ion C	Chief Eng	QC Inspector
i									

NOTE: Date & initial all entries

DART AEROSPACE LTD	Work Order: 392	126
Description: Cap	Part Number: D3	121-25
Inspection Dwg: D3121 Rev: E	Pag	e 1 of 1

	FIRST ARTICLE INSPECTION CHECKLIST								
		X First Arti	cle	Prot	otype				
Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method o		nments		
0.315	+/-0.010	320,							
Ø1.000	+/-0.010	Ø/.000"		3-7-					
Ø0.838	+/-0.002	0,838	V _						
R0.063	+/-0:010	B.063"							
R0.010	+/-0.010	A 010"							
0.230	+/-0.001	, 230°							
Ø0.865	+/-0.001	\$ 865"					,		
					-				
					,	,			
							-49.00		
						,			
					,				
		·							
				1					
					D=4-4	- Ammusicali	N/A		
Measured by:	J.F.	Audited by:	C. for		Prototype	e Approval:	-		
Date:	08/05/17	Date:	1 oq	0529		Date:	N/A		
Rev Date	Change					Revised by	Approved		
A 04.04.20	New Issue	(P/O D3	3121-241)			KJ/RF	1		

Rev	Date	Change	Revised	by Approved
Α	04.04.20	New Issue (P/O D3121-2	(41) KJ/RF	
В	06.06.09	Ø1.000 diameter was Ø1.024	KJ/JLM	1.4
С	08.01.16	Dwg Rev. updated	KJ/EC/DE	



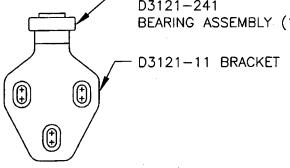
DESIGN DRAWN BY		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA		
CHEC	KED	APPROVED	DRAWING NO. REV. E		
	#		D3121 SHEET 1 OF 10		
DATE			TITLE . SCALE		
07.1	1.07		BRACKET ASSEMBLY 1:2		
Α		02.04.15	NEW ISSUE		
В		03.01.16	ADD RIDGES; ADD MAT'L PROP; FIX P/N ADD -141/-143/-144/-145/-146		
С		04.02.17	ADD CLEARANCE; USE -241 BEARING		
D		06.05.17	D3121-25 CAP WAS 1.024, NOW 1.000		
Ε		07.11.07	ADD TOLERANCE TO 0.032 (DETAIL B)		



D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1)

D3121-041 BRACKET ASSEMBLY

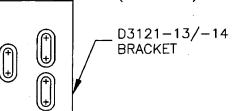
(REPLACES PREMIER P/N B30-23000-33)



D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1) (2 PLACES)

D3121-043 (SHOWN) / D3121-044 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-37/-38)

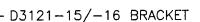


D3121-21 BOLT (1) D3121-241 BEARING ASSEMBLY (1) (2 PLACES)

D3121-045 (SHOWN) / D3121-046 (OPPOSITE) BRACKET ASSEMBLY

(REPLACES PREMIER P/N B30-23000-35/-36)

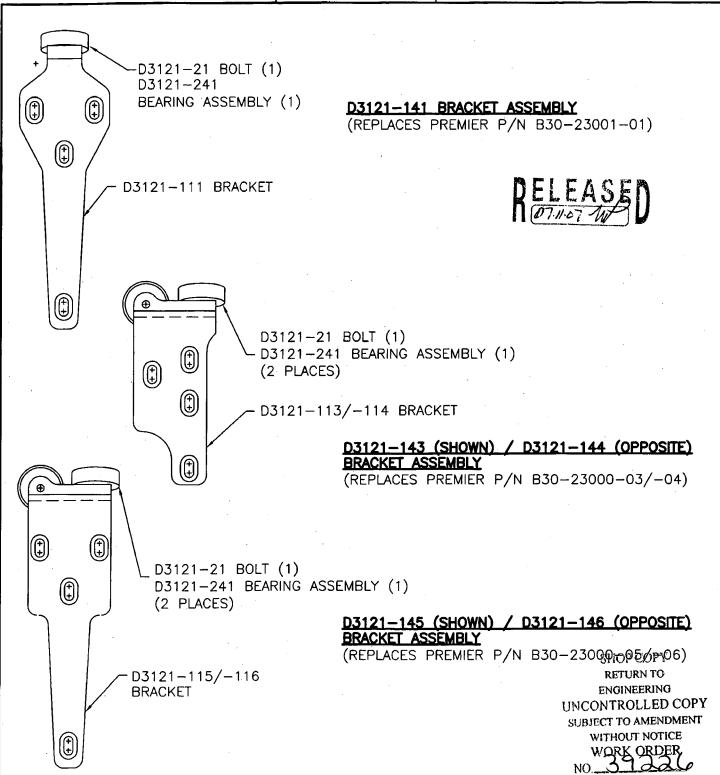
**RETURN TO ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE WORK ORDER



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DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2

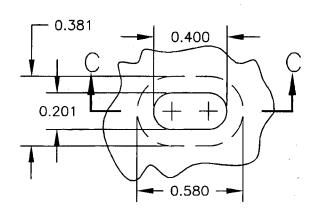


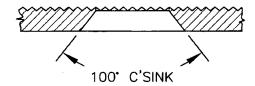
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DATE		TITLE	SCALE
07.11.07	<u> </u>	BRACKET ASSEMBLY	1:1

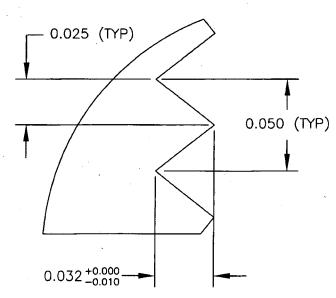
SLOT DETAIL SCALE 2:1 VIEW ROTATED





SECTION C-C

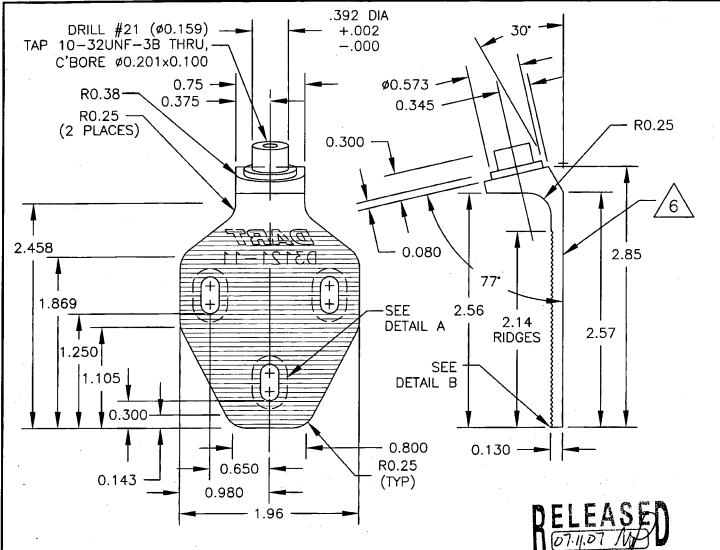
DETAIL B: RIDGE DETAIL PARTIAL SECTION SCALE 1:20



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1 #	-#	D3121	SHEET 4 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:1



**D3121-11 BRACKET** 

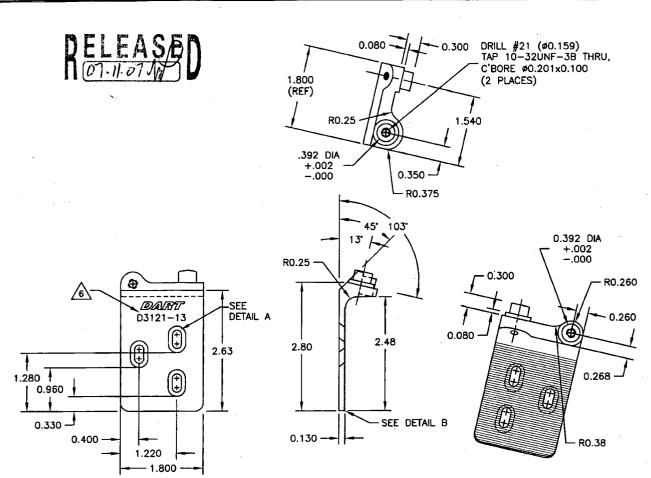
1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) MIN ULTIMATE TENSILE = 150 ksi MIN YIELD TENSILE = 100 ksi

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N & LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

**SHOP COPY** RETURN TO **ENGINEERING** UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE



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4	##	D3121	SHEET 5 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



#### D3121-13 BRACKET (SHOWN) D3121-14 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)

MIN ULTIMATE TENSILE STRENGTH = 150 ksi MIN YIELD TENSILE STRENGTH = 100 ksi

2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

3) ALL DIMENSIONS ARE IN INCHES

4) BREAK ALL SHARP EDGES 0.005 TO 0.015

5) ENGRAVE DART P/N & LOGO AS SHOWN

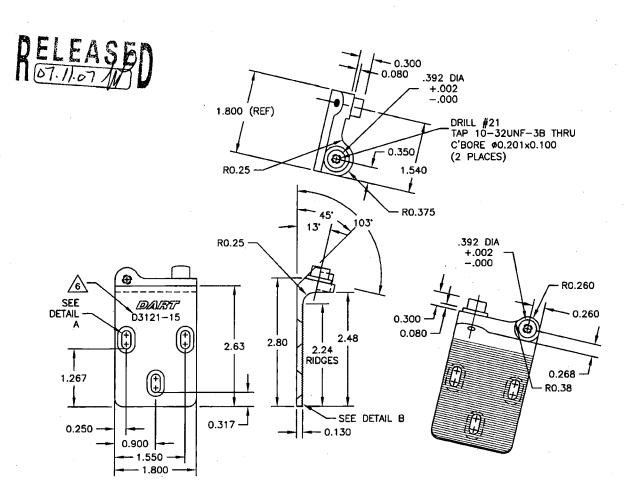
6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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UNCONTROLLED COPY SUBJECT TO AMENDMENT WITHOUT NOTICE



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#	de	D3121	SHEET 6 OF 10
DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



# D3121-15 BRACKET (SHOWN) D3121-16 BRACKET (OPPOSITE)

1) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B)
MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

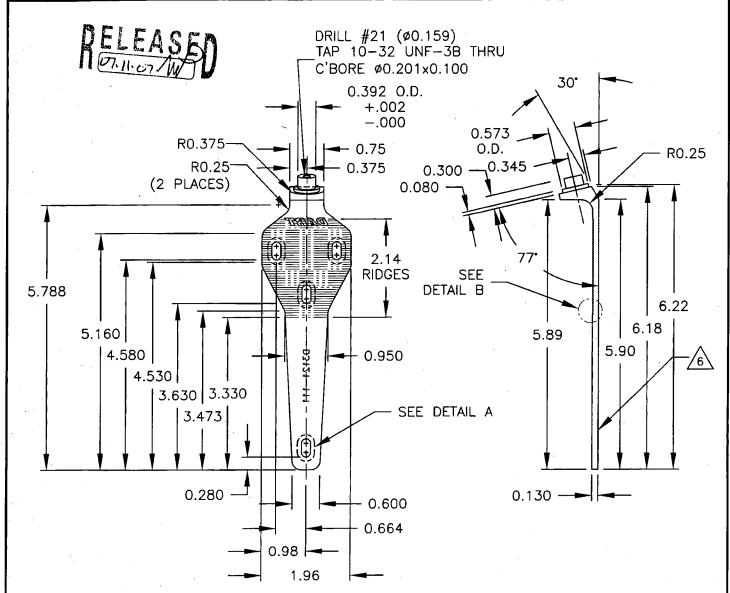
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES
- 4) BREAK ALL SHARP EDGES 0.005 TO 0.015
- 5) ENGRAVE DART P/N AND LOGO AS SHOWN
- 6) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

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DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



#### D3121-111 BRACKET

1) REPLACES PREMIER P/N B32-23001-11

2) MATERIAL: 17-4 SS PER AMS 5604/5643 (REF DART SPEC. M17-4-B) UNCONTROLLED COPY MIN ULTIMATE TENSILE = 150 ksi

MIN YIELD TENSILE = 100 ksi

3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHEWISE NOTED

4) ALL DIMENSIONS ARE IN INCHES

5) BREAK ALL SHARP EDGES 0.005 TO 0.015

6) ENGRAVE DART P/N & LOGO IN AREAS SHOWN

7) HOLE IN SPIGOT TO BE CONCENTRIC WITHIN 0.005

SHOP COPY

RETURN TO

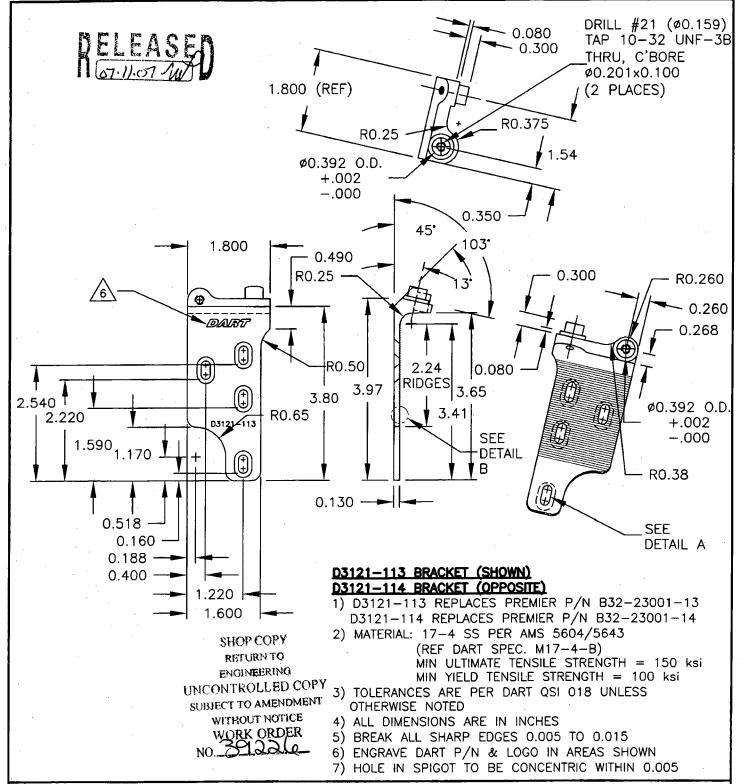
SUBJECT TO AMENDMENT

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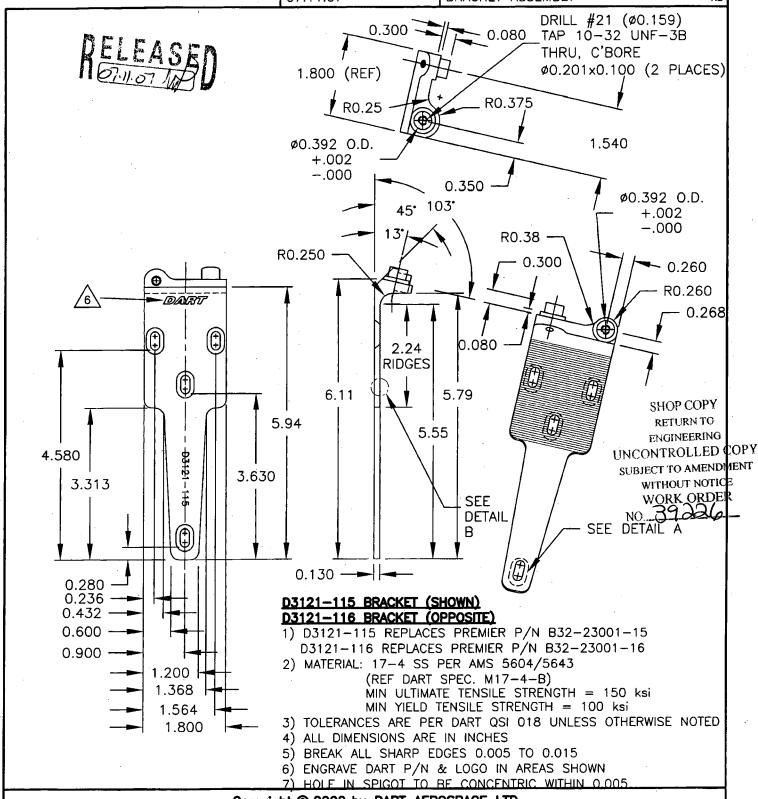
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	CHECKED	APPROVED	DRAWING NO.	REV. E
į	#	<b>-</b>	D3121	SHEET 8 OF 10
	DATE		TITLE	SCALE
	07.11.07		BRACKET ASSEMBLY	1:2



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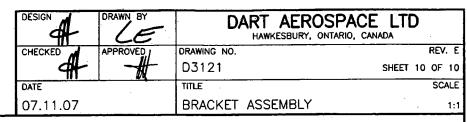


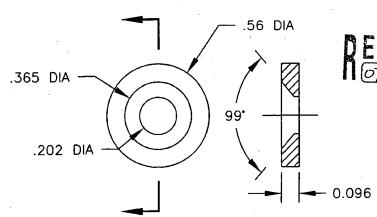
DESIGN A DRAWN BY		DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
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DATE		TITLE	SCALE
07.11.07		BRACKET ASSEMBLY	1:2



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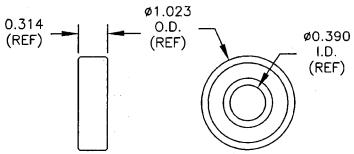






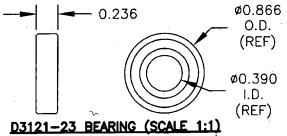
#### D3121-17 WASHER (SCALE 2:1)

- 1) REPLACES PREMIER P/N B32-23001-17
- 2) MATERIAL: AISI 303 SS ROUND BAR, ANNEALED (REF DART SPEC. M303R)
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



#### D3121-19 BEARING (SCALE 1:1)

- 1) POSSIBLE SUPPLIER: KING BEARING P/N 6000-2ZJ/EM 1) MATERIAL: DELRIN ROD, Ø1.25 FAFNIR P/N 9100KDD
- 2) ALL DIMENSIONS ARE IN INCHES



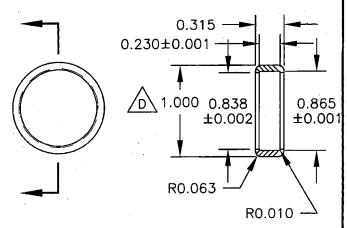
1) POSSIBLE SUPPLIER: SKF P/N 61900-2Z OR KML P/N 6900-ZZ

ALL DIMENSIONS ARE IN INCHES

## 0.375 -TAP 10-32 UNF-3A - 0.080 0.050 TO 0.060

#### D3121-21 BOLT (SCALE 1:1)

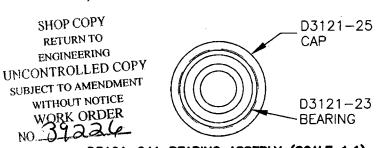
- 1) MATERIAL: AISI 303 SS HEX, ANNEALED (REF DART SPEC. M303H0.500)
- 2) FINISH: NONE
- 3) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) BREAK ALL SHARP EDGES 0.005 TO 0.015



#### D3121-25 CAP (SCALE 1:1)

(REF DART SPEC. M-DELRIN-R1.250)

- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 3) ALL DIMENSIONS ARE IN INCHES



D3121-241 BEARING ASSEBLY (SCALE 1:1)

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